

IN THE CLAIMS:

Please amend the claims as follows:

1. **(Currently Amended)** An on-board antenna comprising:

a radiation element provided on a dielectric substrate; ~~and~~

a grounding conductor surrounding a periphery of an outer edge portion of the radiation element at a position spaced away outwardly from the outer edge portion; and

an inner cut-out portion completely surrounded by an inner periphery of the radiation element,

wherein an entire inner area defined by an outer boundary of the radiation element has an inner cut-out portion so that the exposes ~~surface of the dielectric substrate to be exposed~~ therethrough, and

wherein the radiation element and the grounding conductor are provided on the same surface of the dielectric substrate.

2. **(Previously Presented).** An on-board antenna as set forth in Claim 1, wherein the radiation element is a substantially quadrangular film having two pairs of opposing corner portions, and wherein one pair of the opposing corner portions is cut to form substantially linear perturbative portions

3. **(Original)** An on-board antenna as set forth in Claim 1, wherein the radiation element is circular-shape having a predetermined width.

4. **(Original)** An on-board antenna as set forth in Claim 1, wherein an inner edge portion of the inner cut-out portion follows an outer edge portion of the radiation element at a position spaced away inwardly a predetermined widthwise distance from the outer edge portion of the radiation element.

5. **(Original)** An on-board antenna as set forth in Claim 1, wherein an external size of the on-board antenna with the inner cut-out portion is smaller than that of an on-board antenna without the inner cut-out portion.

6. **(Original)** An on-board antenna as set forth in Claim 1, wherein the radiation element is a semiconductor.

7. **(New)** An on-board antenna comprising:
a radiation element provided on a dielectric substrate; and
a grounding conductor surrounding a periphery of an outer edge portion of the radiation element at a position spaced away outwardly from the outer edge portion;
wherein the radiation element has an inner cut-out portion exposing the dielectric substrate therethrough,
wherein the radiation element and the grounding conductor are provided on the same surface of the dielectric substrate,
wherein the radiation element is a substantially quadrangular film having two pairs of opposing corner portions, and
wherein one pair of the opposing corner portions is cut to form substantially linear perturbative portions

8. **(New)** An on-board antenna as set forth in Claim 7, wherein the radiation element is circular-shape having a predetermined width.

9. **(New)** An on-board antenna as set forth in Claim 7, wherein an inner edge portion of the inner cut-out portion follows an outer edge portion of the radiation element at a position spaced away inwardly a predetermined widthwise distance from the outer edge portion of the radiation element.

10. (New) An on-board antenna as set forth in Claim 7, wherein an external size of the on-board antenna with the inner cut-out portion is smaller than that of an on-board antenna without the inner cut-out portion.

11. (New) An on-board antenna as set forth in Claim 7, wherein the radiation element is a semiconductor.